

## EFFICACY REVIEW

**PRODUCT:** Chemisco Roach Control

**REG. NUMBER:** 9688-67

**DATE:** December 22, 2010

**DP BARCODE:** D384969

**DECISION NUMBER:** 443077

**GLP:** No

**CHEMICAL:** Chlorpyrifos (0.5%)

**CHEMICAL NUMBER:** 059101

**PURPOSE:** Provide efficacy data to support the addition of new marketing claims.


**MRID:** 48321301. Wood, T. (2010) Efficacy of Chemsico Roach Control: German Cockroach Egg Case Viability and German Cockroach Lateral Transfer Efficacy. Unpublished study prepared by United Industries Corporation. 10 p.


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### BACKGROUND:

Chemsico Roach Control (CRC) is a ready-to-use insecticide intended for the indoor residential control of cockroaches. CRC consists of 0.07 oz bait stations that are to be placed in "out of the way" areas that are frequented by cockroaches, *e.g.*, under appliances and sinks. The recommended application rate is a minimum of ten stations in the kitchen and two in the bathroom. The number of bait stations should be increased for heavily infested areas.

### DATA REVIEW:

The following data review is comprised of explanations of materials and methods, and a summation of experimental results containing tables with reformatted data.

**48321301. Wood, T. (2010) Efficacy of Chemsico Roach Control: German Cockroach Egg Case Viability and German Cockroach Lateral Transfer Efficacy. Unpublished study prepared by United Industries Corporation. 10 p.**

Egg Case Viability Study

The experimental design consisted of introducing fifteen female German cockroaches carrying ootheca into arenas containing food, water and harborage. Post-introduction, one bait station (fresh, aged 4-months or aged 6-months) was placed into each test arena. There were a total of three replicates per treatment. Control arenas lacked the introduction of bait stations, however still held food, water and harborage. The number of ootheca producing viable cockroach nymphs was recorded daily.

Results-

**Table 1. Egg Case Viability**

Treatment	Total Hatched Ootheca					
	24-hr	48-hr	72-hr	216-hr	336-hr	432-hr
Bait	4.4%	6.7%	8.9%	8.9%	8.9%	8.9%
Control	6.7%	6.7%	6.7%	33.3%	60.0%	80.0%
Bait (4-month)	4.4%	6.7%	8.9%	11.1%	11.1%	11.1%
Control	6.7%	6.7%	20.0%	46.7%	80.0%	86.7%
Bait (6-month)	4.4%	6.7%	8.9%	11.1%	11.1%	-
Control	6.7%	6.7%	20.0%	46.7%	80.0%	-

Tests show a decrease in the number of viable eggs and nymph hatchings for German cockroaches exposed to Chemsico Roach Control.

Lateral Transfer Efficacy Study

The experimental design consisted of introducing twenty male German cockroaches into arenas containing food, water and harborage. Post-introduction, ten dead cockroaches, which had previously been exposed to Chemsico Roach Control, were placed into each test arena (3 replicates). Control arenas lacked the introduction of dead cockroaches, and did not contain food, water and harborage. The percent mortality was recorded daily.

Results-

**Table 2. Lateral Transfer**

Treatment	Percent Mortality		
	24-hr	48-hr	72-hr
Test Group	45%	77%	97%
Control Group	0%	0%	1%

The percent mortality of German cockroaches exposed to dead cockroaches which had previously been exposed to Chemsico Roach Control ranged from 45% (24-hr) to 97% (72%). The percent control within the control groups remained at acceptable levels throughout the duration of the study.

#### **RECOMMENDATIONS:**

The submitted data do not support the addition of transfer or 6-month residual claims. The following recommendations apply:

1. All claims referring to 6 months of residual control must be deleted throughout the label. Specifically, the claims "*Lasts for up to 6 Months*", "*Lasts up to 6 Months*" and "*Kills Roaches for up to 6 Months*" must be deleted from the label. In addition, revise "*Replace all bait stations every 6 months...*" and "*Replace baits every 6 months...*" to read "*Replace all bait stations every 3 months...*" and "*Replace bait stations every 3 months...*" To have these claims added on in the future, acceptable data must be submitted for both German and American cockroaches.
2. All references to transfer of bait and corresponding efficacy must be deleted from the label. The following comments apply:
  - a. To obtain similar claims in the future, acceptable data must be submitted for both German and American cockroaches.
  - b. In future trials where cockroaches are exposed to dead cockroaches that had previously been exposed to bait, alternate food and water sources must be added to the arenas.
3. All future efficacy submissions should include the raw data.

In addition to the above referenced changes concerning 6 month residual and transfer claims, the following label revisions are required.

1. Revise "*Kills Roaches Fast and the Eggs they Carry*" to read "*Kills Roaches and the Eggs they Carry*".
2. Revise "*Kills [both] large and small roaches [fast!]*" to read "*Kills [both] large and small roaches*".
3. Revise "*Contains 12 Baits*" to read "*Contains 12 Bait Stations*".
4. Delete the claim "*Quick Kill Formula*".
5. Revise "*Kills in Hours*" to read "*Starts Killing in Hours*".
6. Revise "*Kills in 24 Hours*" to read "*Starts Killing in 24 Hours*".

7. Revise "*Works in 24 Hours*" to read "*Starts Working in 24 Hours*".
8. Revise "*Chemsico Roach Control contains a unique attractant that gets roaches to the bait faster, so they die faster.*" to read "*Chemsico Roach Control contains an attractant that gets roaches to the bait.*" Alternatively, the claim may be deleted altogether.
9. Revise "*Attractant quickly draws roaches to bait station.*" to read "*Attractant draws roaches to bait station.*"
10. Revise "*Kills roaches fast...and the eggs they carry.*" to read "*Kills roaches...and the eggs they carry.*"
11. Delete the phrase "*Roach-Free*".